



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

J

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/449,625	11/30/1999	HIROSHI OGAWA	Q56773	6506

7590 07/28/2003

DARRYL MEXIC
SUGHRUE MION ZINN MACPEAK & SEAS PLLC
2100 PENNSYLVANIA AVENUE N W
WASHINGTON, DC 200373202

EXAMINER

LEE, SHUN K

ART UNIT	PAPER NUMBER
	2878

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/449,625	OGAWA, HIROSHI
	Examiner Shun Lee	Art Unit 2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 02 April 2003 & 15 May 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1,3,5,7,17,18,20 and 22-26 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 1,3,5,7,20,25 and 26 is/are allowed.

6) Claim(s) 17,18 and 22-24 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 30 November 1999 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>16</u> .	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 17, 18, and 22-24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a film thickness of 100 μm to 1000 μm , does not reasonably provide enablement for more than 1000 μm . The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. It is noted that applicant argues that "100 μm or more" is described on pg. 11 of the specification. However, the written description requirement is separate and distinct from the enablement requirement (see MPEP § 2161). Moreover the only relevant concern (see MPEP § 2164.08) should be whether the scope of enablement provided to one skilled in the art by the disclosure is commensurate with the scope of protection (*i.e.*, for more than 1000 μm such as a 10 cm thick film) sought by the claims. Further, applicant argues (pg. 6 of remarks filed 2 April 2003) that a large gap A cause a surface to lack uniformity and separation of the solution (see also pg. 13 of the specification). Thus it is unclear from the specification how a thick uniform film (*e.g.*, a 10 cm thick film) can be made when the gap A must be large.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki *et al.* (US 4,728,583) in view of O'Brien (US 4,445,458).

In regard to claims 17 and 18, Yamazaki *et al.* disclose (Fig. 1) a method of manufacturing a radiation image conversion panel (7, 6, 5) in which a stimulable phosphor-containing coating solution (2), which contains at least a stimulable phosphor (column 6, line 4 to column 9, line 3) and a binder (column 9, lines 4-17), is applied to a support (5) by use of an extrusion coater (*i.e.*, two hopper type coating apparatus 1) such that the film thickness of a coated film (6) of the stimulable phosphor-containing coating solution is 100 μm or more (which is within the range of 20 μm to 1 mm; column 12, lines 8-14). The method of Yamazaki *et al.* lacks that the extrusion coater is disposed on a first plane surface and the support is disposed on a roller with an axis in a second plane located above the discharge opening at the extrusion coater tip and parallel to the first plane, such that the second plane forms an angle θ from 0 to 30° with the direction of the shortest distance between the roller and the tip discharge opening and an angle α from 5 to 60° with the stimulable phosphor-containing coating solution discharge direction. O'Brien teaches (Figs. 1 and 2) it is known in the art that a predetermined angle (A) formed by the coating solution discharge direction (32) and

Art Unit: 2878

reference line perpendicular to the web (12) surface in order to properly apply a coating (column 3, lines 38-48). Therefore it would be obvious to one of ordinary skill to provide a predetermined angle A (e.g., $\theta = 0^\circ$ and $\alpha = 5^\circ$) in the method of Yamazaki *et al.*, in order to properly apply a coating as taught by O'Brien.

Allowable Subject Matter

5. Claims 1, 3, 5, 7, 20, 25, and 26 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter: the instant application is deemed to be directed to an nonobvious improvement over the invention patented in US Patent 4,728,583. The improvement comprises in combination with other recited elements, a stimulable phosphor-containing coating solution is applied such that a gap A (μm) between a discharge opening at the tip of the extrusion coater and the support, and a film thickness B (μm) of the coated film of the stimulable phosphor-containing coating solution satisfy the following relational expression $0.75 \times B + 100 \leq A \leq 1.10 \times B + 130$.

Response to Arguments

7. Applicant's arguments filed 2 April 2003 and have been fully considered but they are not persuasive.

In response to applicant's argument (in regard to claims 17 and 18 on pg. 7-8 of remarks filed 2 April 2003) that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the

time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). It is noted that applicant argues that there is no actual prior art disclose in support of the obviousness. Examiner respectfully disagrees. O'Brien teaches (Figs. 1 and 2) it is known in the art that a predetermined angle (A) formed by the coating solution discharge direction (32) and reference line perpendicular to the web (12) surface in order to properly apply a coating (column 3, lines 38-48). Thus it is clear that it is known in the prior art that the coating solution must be discharged at a predetermined non-zero angle (see A in Fig. 2 of O'Brien) in order to properly apply a coating (see column 3, lines 38-48 of O'Brien). Applicant has failed to any evidence of the criticality of the claimed ranges (e.g., by showing that the claimed range achieves unexpected results relative to the prior art range; see MPEP § 2144.05). Therefore it would be obvious to one of ordinary skill to provide a predetermined angle A (e.g., $\theta = 0^\circ$ and $\alpha = 5^\circ$) in the method of Yamazaki et al., in order to properly apply a coating as taught by O'Brien.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (703) 308-4860. The examiner can normally be reached on Tuesday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

SL
July 22, 2003



DAVID PORTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800